

Ana Isabel SANZ MOLINERO
Appl. No. 10/537,897
Atty. Ref.: 4982-5
Amendment
April 6, 2010

AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A method for increasing plant yield under conditions promoting plant growth relative to a corresponding wild type plant under said conditions, comprising ~~transforming increasing expression in a plant [[of]] with~~ a nucleic acid sequence encoding a 2xC2H2 zinc finger protein , said 2xC2H2 zinc finger protein comprising the following motifs (i) – (iv):

- (i) a motif as ~~comprising represented by~~ SEQ ID NO: 5 or SEQ ID NO:51;
- (ii) a motif as ~~comprising represented by~~ SEQ ID NO: 7;
- (iii) a motif as ~~comprising represented by~~ SEQ ID NO: 8; and
- (iv) a motif as ~~comprising represented by~~ SEQ ID NO: 9; to produce a modified plant;

growing said plant under said conditions; and
selecting said modified plant having increased yield as compared to a corresponding wild type plant.

2. (Currently Amended) A method for increasing leaf surface area under conditions promoting plant growth relative to a corresponding wild type plant under said conditions, comprising ~~transforming increasing expression in a plant [[of]] with~~ a nucleic acid sequence encoding a 2xC2H2 zinc finger protein, said 2xC2H2 zinc finger protein comprising the following motifs (i) – (iv):

- (i) a motif as ~~comprising represented by~~ SEQ ID NO: 5 or SEQ ID NO:51;
- (ii) a motif as ~~comprising represented by~~ SEQ ID NO: 7;

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Atty. Ref.: 4982-5

Amendment

April 6, 2010

(iii) a motif as comprising~~represented by~~ SEQ ID NO: 8;

(iv) a motif as comprising~~represented by~~ SEQ ID NO: 9; to produce a modified plant;

growing said plant under said conditions; and

selecting said modified plant having increased leaf surface area as compared to a corresponding wild type plant.

3. (Currently Amended) A method for prolonging vegetative growth phase of a plant under conditions promoting plant growth relative to a corresponding wild type plant under said conditions, comprising transforming~~increasing expression in~~ a plant [[of]]with a nucleic acid sequence encoding a 2xC2H2 zinc finger protein, said 2xC2H2 zinc finger protein comprising the following motifs (i) – (iv):

(i) a motif as comprising~~represented by~~ SEQ ID NO: 5 or SEQ ID NO: 51;

(ii) a motif as comprising~~represented by~~ SEQ ID NO: 7;

(iii) a motif as comprising~~represented by~~ SEQ ID NO: 8;

(iv) a motif as comprising~~represented by~~ SEQ ID NO: 9; to produce a modified plant;

growing said plant under said conditions; and

selecting said modified plant having prolonging vegetative growth phase as compared to a corresponding wild type plant .

4. (Currently Amended) [[A]]The method according to claim 1, wherein said increasing expression is effected by recombinant means.

Claims 5-9. (Canceled)

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10. (Currently Amended) [[A]]The method according to claim 1, wherein said 2xC2H2 zinc finger protein is a dicotyledonous plant 2xC2H2 zinc finger protein.

Claim 11. (Canceled)

12. (Currently Amended) [[A]]The method according to claim 1, wherein said plant is a monocot.

13. (Currently Amended) [[A]]The method according to claim 1, wherein said transforming increasing expression is effected by introducing into the plant a nucleic acid capable of increasing expression of a gene encoding said 2xC2H2 zinc finger protein.

14. (Currently Amended) [[A]]The method according to claim 13, wherein said nucleic acid capable of increasing expression is a nucleic acid encoding said 2xC2H2 protein.

15. (Currently Amended) [[A]]The method according to claim 13, wherein said nucleic acid introduced into the plant is an alternative splice variant of the ~~of the~~ nucleic acid encoding a 2xC2H2 zinc finger protein.

16. (Currently Amended) [[A]]The method according to claim 13, wherein said nucleic acid introduced into the plant is an allelic variant of the ~~of the~~ nucleic acid encoding a 2xC2H2 zinc finger protein.

17. (Currently Amended) [[A]]The method according to claim 13, wherein said nucleic acid introduced into the plant is comprised on at least part of a chromosome.

Claim 18. (Canceled)

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19. (Currently Amended) [[A]]The method according to claim 1, wherein expression of said nucleic acid is driven by a plant promoter.

20. (Currently Amended) [[A]]The method according to claim 19, wherein the plant promoter is a tissue preferred promoter.

21. (Currently Amended) [[A]]The method according to claim 1, wherein said increased yield comprises increased above ground biomass.

22. (Currently Amended) [[A]]The method according to claim 1, wherein said increased yield comprises increased seed yield.

23. (Currently Amended) [[A]]The method according to claim 1, wherein said increased yield comprises increased root yield.

Claims 24-28. (Canceled)

29. (Currently Amended) A method for the production of a transgenic plant having increased yield, increased leaf surface area and/or prolonged vegetative growth under conditions promoting plant growth relative to a corresponding wild type plant under said conditions, which method comprises

(i) introducing into a plant or plant cell a nucleic acid sequence encoding a 2xC2H2 zinc finger protein, said 2xC2H2 zinc finger protein comprising the following motifs (i) – (iv):

(a) a motif as comprising~~represented by~~ SEQ ID NO: 5 or SEQ ID NO: 51;

(b) a motif as comprising~~represented by~~ SEQ ID NO: 7;

(c) a motif as comprising~~represented by~~ SEQ ID NO: 8; and

(d) a motif as comprising~~represented by~~ SEQ ID NO: 9;

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(ii) Cultivating the plant or plant cell under conditions promoting plant growth;

and

(iii) selecting for plants having increased yield, increased leaf surface area and/or prolonged vegetative growth.

Claims 30-43. (Canceled)

44. (Previously Presented) The method of claim 10 wherein said dicotyledonous plant is from the family Brassicaceae

45. (Previously Presented) The method of claim 10 wherein said dicotyledonous plant is *Arabidopsis thaliana*.

46. (Previously Presented) The method of claim 10 wherein said 2xC2H2 zinc finger protein is SEQ ID NO:2.

47. (Previously Presented) The method of claim 10 wherein said 2xC2H2 zinc finger protein is a protein encoded by SED ID NO:1 or said protein is encoded by a nucleic acid sequence capable of completely hybridizing with SEQ ID NO:1.

Claim 48. (Canceled)

49. (Previously Presented) The method according to claim 19, wherein the plant promoter is a constitutive promoter.

50. (Previously Presented) The method of claim 49, wherein the promoter is a GOS2 promoter.

51. (Previously Presented) The method according to claim 20, wherein the tissue preferred promoter is a seed-preferred promoter.

Claim 52. (Canceled)

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53. (Currently Amended) The method of claim 1 wherein said 2xC2H2 zinc finger protein comprises a sequence selected from the group consisting of SEQ ID NO:2 and sequences having 80% homology thereto SEQ ID NOS: 2, 13, 15, 17, 21, 25, 27, 29 and 33.

54. (Currently Amended) The method of claim 2 wherein said 2xC2H2 zinc finger protein comprises a sequence selected from the group consisting of SEQ ID NO:2 and sequences having 80% homology thereto SEQ ID NOS: 2, 13, 15, 17, 21, 25, 27, 29 and 33.

55. (Currently Amended) The method of claim 3 wherein said 2xC2H2 zinc finger protein comprises a sequence selected from the group consisting of SEQ ID NO:2 and sequences having 80% homology thereto SEQ ID NOS: 2, 13, 15, 17, 21, 25, 27, 29 and.

56. (Currently Amended) The method of claim 29, wherein said 2xC2H2 zinc finger protein comprises a sequence selected from the group consisting of SEQ ID NO:2 and sequences having 80% homology thereto SEQ ID NOS: 2, 13, 15, 17, 21, 25, 27, 29 and.